

REMARKS

In the Office Action dated September 22, 2005, the Examiner rejected claims 1-4, 6-12, 14, 15, and 17 under 35 U.S.C. § 103(a) as being unpatentable over Hirth (U.S. Patent No. 4,765,803). The Examiner rejected claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Hirth as applied to claim 1 and in view of McQuigg et al. (“McQuigg”) (U.S. Patent No. 6,530,978). The Examiner also rejected claim 13 under 35 U.S.C. § 103(a) as being unpatentable over Hirth, as applied to claim 12, in view of “legal precedent.” Finally, the Examiner rejected claims 16 and 18 under 35 U.S.C. § 103(a) as being unpatentable over Hirth as applied to claims 15 and 17, respectively, in view of Yang (U.S. Patent No. 6,193,934).

Applicants respectfully traverse the Section 103(a) rejection of claims 1-4, 6-12, 14, 15, and 17 based on Hirth because a case for *prima facie* obviousness has not been established. As M.P.E.P. § 2142 states, “[t]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness.” To establish *prima facie* obviousness under 35 U.S.C. § 103(a), three requirements must be met. “First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.” M.P.E.P. § 2143 (8th ed. 2005) Moreover, each of these requirements must “be found in the prior art, and not be based on applicant’s disclosure.” M.P.E.P. § 2143 (8th ed. 2005). In this case, the requirements for *prima facie* obviousness are lacking, as discussed below.

Independent claim 1 recites a combination of features including, *inter alia*, “dividing a flow of exhaust gas from the engine into at least two streams of exhaust gas, each of the two streams of exhaust gas including particulate matter.” Hirth fails to disclose at least these claim features. Indeed, the Examiner admits that Hirth fails to disclose that the gas stream in Hirth is exhaust gas from an engine. See Office Action at page 3. In an attempt to overcome this deficiency of Hirth, the Examiner has mischaracterized the claim recitation of “dividing a flow of exhaust gas from the engine into at least two streams of exhaust gas, each of the two streams of exhaust gas including particulate matter,” as an “intended use statement.” See Office Action at page 3. Applicants submit that the Examiner cannot properly characterize this method claim recitation, or any portion thereof, as a statement of “intended use” in order to overcome an admitted deficiency in the reference. It is well settled that all claim limitations must be taught or suggested. See M.P.E.P. § 2143.03. The material upon which a process is carried out must be accorded weight in determining the patentability of a process. See M.P.E.P. § 2116. Because the method claim recitation discussed above must be accorded patentable weight, it cannot be properly characterized as a statement of intended use. Furthermore, given that the claimed features are not taught by the applied reference, the Examiner has failed to establish a *prima facie* case of obviousness with respect to claim 1.

Although independent claim 6 has a scope different from claim 1, claim 6 is a method claim including recitations similar to the above-mentioned recitations of claim 1, and is therefore allowable, for at least the reasons discussed above. For example, claim 6 includes a combination of features including, *inter alia*, “dividing a flow of

exhaust gas from the engine into at least two streams of exhaust gas, each exhaust gas stream including particulate matter.” As discussed above, Hirth fails to disclose at least such subject matter. Therefore, the Examiner has failed to establish a *prima facie* case of obviousness with respect to claim 6.

The Examiner has also failed to establish a *prima facie* case of obviousness with respect to claim 10. For example, independent claim 10 includes a combination of features including, *inter alia*, “a first exhaust conduit configured to conduct a first stream of exhaust gas having particulate matter; a second exhaust conduit configured to conduct a second stream of exhaust gas having particulate matter . . .” Hirth, as admitted by the Examiner, fails to disclose at least these claim features. See Office Action at page 3. In an attempt to overcome these deficiencies of Hirth, the Examiner has apparently mischaracterized the claim recitation of “a first exhaust conduit configured to conduct a first stream of exhaust gas having particulate matter; a second exhaust conduit configured to conduct a second stream of exhaust gas having particulate matter . . .” as an “intended use statement.” See Office Action at page 3.

Contrary to the Examiner’s apparent assertion, an element configured in a particular manner plainly sets out a structural configuration rather than intended use. (Emphases added.) Thus, the above-mentioned recitations of claim 10 should be given patentable weight. Furthermore, determinations of obviousness must be supported by evidence on the record. See In re Zurko, 258 F.3d 1379, 1386 (Fed. Cir. 2001), 59 USPQ2d 1693, 1696-98 (finding that the factual determinations central to the issue of patentability, including conclusions of obviousness by the Board, must be supported by “substantial evidence”). The desire to combine or modify references must be proved

with “substantial evidence” that is a result of a “thorough and searching” factual inquiry. See In re Lee, 277 F.3d 1338, 1343-1344 (Fed. Cir. 2002), 61 USPQ2d 1430, 1433 (quoting McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 1351-52). Additionally, the Federal Circuit has clearly stated that the evidence of a motivation or suggestion to modify a reference must be “clear and particular.” In re Dembicziak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

In this case, the Examiner has not shown by “clear and particular” evidence that a skilled artisan considering Hirth, and not having the benefit of Applicants’ disclosure, would have modified Hirth in a manner resulting in the apparatus defined by claim 10. The Examiner’s assertion that “the mere selection of the apparatus of Hirth for use in a purification system of an engine would be well within the level of ordinary skill in the art.” is unsupported and does not show that a skilled artisan would modify Hirth as alleged. The Office Action provides no reasoning or evidence showing that one having ordinary skill in the art considering the apparatus of Hirth would be concerned with the “purification system of an engine,” as alleged by the Examiner. From what Applicants can discern, the system in Hirth does not even mention “a first exhaust conduit configured to conduct a first stream of exhaust gas having particulate matter; [and] a second exhaust conduit configured to conduct a second stream of exhaust gas having particulate matter . . .” (emphases added), as required by claim 10.

As M.P.E.P. § 2143.01 makes clear, “[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination” (citations omitted). In this case, the Examiner has not shown that Hirth “suggests the desirability” of “a first

exhaust conduit configured to conduct a first stream of exhaust gas having particulate matter; [and] a second exhaust conduit configured to conduct a second stream of exhaust gas having particulate matter . . .” (emphasis added), as required by claim 10. Applicants submit that the Examiner is impermissibly using teachings of the present application in hindsight to suggest that claim limitations of the present application would be obvious to one having ordinary skill in the art in view of Hirth. Such use of impermissible hindsight in making a *prima facie* case of obviousness is prohibited. See M.P.E.P. § 2142.

With respect to the conclusions of obviousness in the rejection of claims 1, 6, and 10, it is noted that the apparent rationale or motivation given is “since the recitation of such amounts to an intended use statement . . .” See Office Action at page 3. Applicants submit that whether a particular claim limitation is characterized as “intended use” has no bearing on what one having ordinary skill in the art would or would not do. Therefore, this is plainly not a proper rationale or motivation in support of a conclusion of obviousness.

For at least these reasons, *prima facie* obviousness has not been established with respect to claims 1, 6, and 10. The rejection of claims 1, 6, and 10 under 35 U.S.C. § 103(a) should therefore be withdrawn. The § 103(a) rejection of dependent claims 2-4, 7-12, 14, 15, and 17 should be withdrawn as well, for at least the same reasons as those presented above in connection with base claims 1, 6, and 10.

Applicants respectfully traverse the rejection of claim 5 under 35 U.S.C. 103(a) as being unpatentable over Hirth as applied to claim 1, in view of McQuigg. Claim 5 depends from and adds additional features to independent claim 1. Moreover,

McQuigg, relied on for its asserted disclosure of a system to remove particulate matters from a gas stream by passing the gas stream through an indirect gas cooler (see Office Action at pages 4-5) fails to cure the deficiency of Hirth. Accordingly, claim 5 is allowable for at least the reasons set forth above.

Applicants respectfully traverse the rejection of claim 13 under 35 U.S.C. 103(a) as being unpatentable over Hirth as applied to claim 12, in view of "legal precedent." Claim 12 is allowable for at least the reasons discussed above. Claim 13 depends from and adds additional features to claim 12. Moreover, In re Aller, relied on for its reasoning that "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation," (see Office Action at page 5) fails to cure the deficiency of Hirth. In addition, that case is not relevant to the claimed subject matter. Accordingly, claim 13 is allowable for at least the reasons discussed above.

Applicants respectfully traverse the rejection of claims 16 and 18 under 35 U.S.C. § 103(a) as being unpatentable over Hirth as applied to claims 15 and 17, respectively in view of Yang. Claims 15 and 17 are allowable for at least the reasons discussed above. Claims 16 and 18 depend from and add additional features to claims 15 and 17 respectively. Moreover, Yang, relied on for its asserted disclosure of a copper screen serving as a ground electrode (see Office Action at 6) fails to cure the deficiencies of Hirth. Accordingly claims 16 and 18 are allowable for at least the reasons set forth above.

In view of the foregoing remarks, Applicants respectfully request reconsideration of this application, the withdrawal of the claim rejections, and the timely allowance of the pending claims.

The Office Action contains several characterizations of the claims and related art. Applicants decline to subscribe to any characterization, regardless of whether it is discussed specifically herein. In particular, Applicants disagree with the Examiner's assertions regarding "intended uses," what is alleged "within the level of skill in the art," and what is allegedly "well known" or purported to be "notoriously well known," for example.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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